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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,238	06/20/2001	Jeffrey D. Washington	5150-48500	6736

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EXAMINER

VU, KIEU D

ART UNIT	PAPER NUMBER
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2173

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/886,238

Applicant(s)

WASHINGTON, JEFFREY D.

Examiner

Kieu D Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9, 20-26, and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Thomsen et al ("Thomsen", USP 5987246).

Regarding claims 1, 20, and 34, Thomsen teaches steps for configuring a node in a graphical program, comprising displaying the node in the graphical program (col 2, lines 44-47); receiving user input specifying configuration information for the node (col 2, lines 47-50); programmatically creating and displaying one or more input terminals and one or more output terminals for the node, based on the configuration information (inherent); performing at least one of connecting an input terminal of the node to a data source in the graphical program, in response to user input; connecting an output terminal of the node to a data target in the graphical program, in response to user input (col 2, lines 47-50).

Regarding claims 2 and 21, Thomsen teaches a first plurality of possible input terminals is associated with the node and a second plurality of possible output terminals is associated with the node (col 8, lines 29-35); and creating and displaying only a subset of the first plurality of possible input terminals or creating and displaying only a subset of the second plurality of possible output terminals (Fig. 9-10).

Regarding claims 3 and 22, Thomsen teaches receiving user input specifying one or more input terminals from a set of possible input terminals (col 2, lines 50-51), one or more output terminals from a set of possible input terminals (Fig. 7), wherein creating and displaying the one or more input terminals and the one or more output terminals are specified by the user input (see Fig. 7).

Regarding claims 4 and 23, Thomsen teaches, based on the configuration information, selecting the one or more input terminals from a set of possible input terminals and selecting the one or more output terminals from a set of possible output terminals (col 7, lines 16-29).

Regarding claims 5 and 24, Thomsen teaches specifying desired functionality for the node (col 6, lines 31-38) and determining the one or more input terminals and the one or more output terminals for the node based on the specified desired functionality for the node (col 8, lines 32-44).

Regarding claims 6 and 25, it is inherent that Thomsen teaches when the terminals are not necessary for implementing the specified desired functionality for the Node, they are not selected for inclusion in the displayed terminals.

Regarding claim 7, Thomsen teaches the inclusion of the node in the graphical program (col 2, lines 20-23).

Regarding claim 8, Thomsen teaches connecting an input terminal of the node to an output terminal of another node in the graphical program and an output terminal of the node to an input terminal of another node in the graphical program (Fig. 10).

Regarding claims 9 and 26, Thomsen teaches programmatically generating graphical source code for the node to implement functionality specified by the configuration information (col 8, lines 50-59).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomsen and Kodosky et al ("Kodosky", USP 5301301).

Regarding claim 13, Thomsen teaches steps for configuring nodes in a graphical program, comprising displaying the nodes in the graphical program (col 2, lines 44-47); receiving user input specifying configuration information for the node (col 2, lines 47-50); for at least a first subset of the plurality of nodes, displaying wires visually indicating interconnections between nodes in the first subset (Fig. 7, 10-11), the wires visually indicates data flow from the first node to the second node (Fig. 7, 10-11). Thomsen further teaches connecting an input terminal of the node to an output terminal of another node in the graphical program and an output terminal of the node to an input terminal of another node in the graphical program (Fig. 10). Thomsen does not teach that the label corresponds to an input terminal or output terminal. However, such feature is known in the art as taught by Kodosky. Kodosky teaches a system to perform dataflow

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computation which comprises the labeling inputs and outputs (col 4, lines 17-38). It would have been obvious to one of ordinary skill in the art, having the teaching of Thomsen and Kodosky before him at the time the invention was made, to modify the visual program taught by Thomsen to include the labeling inputs and outputs taught by Kodosky with the motivation being to enhance the clarification of the program.

5. Claims 10-12, 14-19, 27-33, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomsen and Jordan et al ("Jordan", USP 5155836).

Regarding claims 10 and 27, Thomsen teaches requesting user input requesting to provide configuration information for the node (user input to connect input to a node and output from a node), displaying a graphical user interface (GUI) input panel in response to the user input requesting to provide configuration information for the node; wherein said receiving user input specifying configuration information for the node comprises receiving user input via the GUI input panel (col 4, lines 47-56). Thomsen differs from the claim in that Thomsen does not teach displaying a graphical user interface input panel in response to the user input requesting to provide configuration information for the node. However, such feature is known in the art as taught by Jordan. Jordan teaches a block diagram editor system which comprises displaying pop-up menu to provide receive user input specifying configuration for the node (col 13, lines 25-45). These pop-up menus are displayed in response to user input (pressing the yellow mouse button) (col 13, lines 25-45). It would have been obvious to one of ordinary skill in the art, having the teaching of Thomsen and Jordan before him at the time the invention was made, to modify the graphical program system taught by Thomsen to

include displaying a prompt in response to user's input request taught by Jordan with the motivation being to enhance the user friendliness of the system.

Regarding claims 11 and 28, Thomsen teaches displaying one or more labels for the nodes (labeling sides of the node, col 2, lines 25-44), and further teaches labeling left side for receiving input data and right side for producing output data (col 2, lines 27-32) (Fig. 7). Thomsen also teaches connecting left side (side that is labeled "input" in Fig. 7) of the node to the data source and connecting right side (side that is labeled "output" in Fig. 7) to the data target (col 2, lines 45-56). Thomsen does not teach labeling input terminal or output terminal. However, such feature is known in the art as taught by Jordan. Jordan teaches a block diagram editor system which comprises the labeling input terminals and output terminals (col 19, lines 39-55). It would have been obvious to one of ordinary skill in the art, having the teaching of Thomsen and Jordan before him at the time the invention was made, to modify the visual program taught by Thomsen to include the labeling input terminals and output terminals taught by Jordan with the motivation being to enhance the clarification of the program.

Regarding claim 12 and 29, Thomsen teaches displaying alias (labels) for the nodes (labeling sides of the node, col 2, lines 25-44), and further teaches labeling left side for receiving input data and right side for producing output data (col 2, lines 27-32) (Fig. 7). Thomsen also teaches connecting left side (side that is labeled "input" in Fig. 7) of the node to the data source and connecting right side (side that is labeled "output" in Fig. 7) to the data target (col 2, lines 45-56). The label of the left side visually indicates that the left side is an input side (see Fig. 7). The label of the right side visually indicates

that the right side is an output side (see Fig. 7), therefore, the input side and output side are identifiable for connection to other nodes in the program.

Thomsen does not teach providing alias for input terminal or output terminal. However, such feature is known in the art as taught by Jordan. Jordan teaches a block diagram editor system which comprises providing alias (labeling) to input terminals and output terminals (col 19, lines 39-55). It would have been obvious to one of ordinary skill in the art, having the teaching of Thomsen and Jordan before him at the time the invention was made, to modify the visual program taught by Thomsen to include the labeling input terminals and output terminals taught by Jordan with the motivation being to enhance the clarification of the program.

Regarding claims 14 and 30, Thomsen teaches displaying node in the graphical program (col 2, lines 45-47), displaying alias (name) of the node in the front side of the node (see col 2, lines 32-37), for displaying alias (labels) for other sides of the node (labeling sides of the node, col 2, lines 25-44), and further teaches labeling left side for receiving input data and right side for producing output data (col 2, lines 27-32) (Fig. 7). Thomsen also teaches connecting left side (side that is labeled "input" in Fig. 7) of the node to the data source and connecting right side (side that is labeled "output" in Fig. 7) to the data target (col 2, lines 45-56). The label of the left side visually indicates that the left side is an input side (see Fig. 7). The label of the right side visually indicates that the right side is an output side (see Fig. 7), therefore, the input side and output side are identifiable for connection to other nodes in the program.

Thomsen neither teaches providing alias for input terminal or output terminal nor teaches receiving user input specifying alias for input terminal or output terminal.

However, such feature is known in the art as taught by Jordan. Jordan teaches a block diagram editor system which comprises providing and displaying alias (labeling) to input terminals and output terminals (show labels) and receiving user input specifying alias for input terminal or output terminal (change labels) (col 19, lines 39-55). It would have been obvious to one of ordinary skill in the art, having the teaching of Thomsen and Jordan before him at the time the invention was made, to modify the visual program taught by Thomsen to include the labeling input terminals and output terminals taught by Jordan with the motivation being to enhance the clarification of the program.

Regarding claims 15 and 31, Jordan teaches displaying labels for input terminals and output terminals (col 9, lines 39-41).

Regarding claims 16 and 32, Jordan teaches receiving user input specifying an alias (label) for a first input terminal or output terminal having a default further teaches programmatically replacing the default label with the alias (change existing label with a new label) (col 19, lines 39-55).

Regarding claims 17 and 33, Thomsen teaches requesting user input requesting to provide configuration information for the node (user input to connect input to a node and output from a node), displaying a graphical user interface (GUI) input panel in response to the user input requesting to provide configuration information for the node; wherein said receiving user input specifying configuration information for the node comprises receiving user input via the GUI input panel (col 4, lines 47-56). Thomsen

differs from the claim in that Thomsen neither teaches displaying a graphical user interface input panel in response to the user input requesting to provide configuration information for the node nor receiving user input specifying an alias for input terminal or output terminal via GUI input panel. However, such feature is known in the art as taught by Jordan. Jordan teaches a block diagram editor system which comprises displaying pop-up menu to provide receive user input specifying configuration for the node (col 13, lines 25-45). These pop-up menus are displayed in response to user input (pressing the yellow mouse button) (col 13, lines 25-45). Jordan further teaches receiving user input specifying alias (label) for input terminals or output terminals via GUI input panel (col 19, lines 39-56). It would have been obvious to one of ordinary skill in the art, having the teaching of Thomsen and Jordan before him at the time the invention was made, to modify the graphical program system taught by Thomsen to include displaying an input panel in response to user's input request and receiving user input specifying an alias for input terminal or output terminal via GUI input panel taught by Jordan with the motivation being to enhance the user friendliness of the system.

Regarding claim 18, Thomsen teaches user input requesting inclusion of the node in the graphical program (col 2, lines 45-47).

Regarding claim 19, Thomsen teaches connecting input terminal to a data source in the graphical program and connecting output terminal to a data target in the graphical program, in response to user input (Fig 10-11). Thomsen does not teach that the input and output terminals are visually indicated by an alias. However, such feature is known in the art as taught by Jordan. Jordan teaches a block diagram editor system

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which comprises providing and displaying alias (labeling) to input terminals and output terminals (show labels) and receiving user input specifying alias for input terminal or output terminal (change labels) (col 19, lines 39-55). It would have been obvious to one of ordinary skill in the art, having the teaching of Thomsen and Jordan before him at the time the invention was made, to modify the visual program taught by Thomsen to include the labeling input terminals and output terminals taught by Jordan with the motivation being to enhance the clarification of the program.

6. Response to Applicant's arguments filed 08/16/04.

In response to Applicant's argument "Thomsen's system is not capable of programmatically creating and displaying input terminals or output terminals for a node based on configuration information specified by user input", it is noted that this argument is not persuasive. Column 2, lines 20-23 teaches that Thomsen's system is "a graphical programming system". Column 2, lines 47-50 teaches user "configures the various nodes and connects the outputs and inputs of the various nodes", so it is clear that the input terminals or output terminals are specified by user input based on user configuration information. Column 6, lines 31-34 teaches "a computer generated display of a completed graphical program is shown" in Figure 7. Referring to Figure 7, user sees the display of nodes and their input/output terminals. Therefore, it is clear that Thomsen's graphical programming system is capable of programmatically creating and displaying input terminals or output terminals for a node based on configuration information specified by user input.

In response to Applicant's argument that Thomsen does not teach or suggest the combination of elements recited in claim 3, it is noted that such is not quite the case.

Column 2, lines 50-51 "The user can only connect data of the specified type to the designated inputs of each nodes" shows that there is a set of data input, and the user can specify one or more input terminals to connect to the node.

As seen in Fig. 7, output from a node can be connect as input to another node, therefore, there the user can specify one or more output terminals from a set of possible output terminals.

In response to Applicant's argument on the rejection of claim 9, it is noted that as presented in the rejection of claim 1, Thomsen teaches user-specified configuration information which specifies functionality for a node. Thomsen further teaches generating graphical source code since Figure 7 shows graphical diagram of the nodes and input/output terminals as specified by user's configuration information.

Other arguments are moot under new ground of rejection.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kieu D. Vu.

The examiner can normally be reached on Mon - Thu from 7:00AM to 3:00PM at 571-272-4057.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca, can be reached at 571-272-4048.

The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

703-872-9306

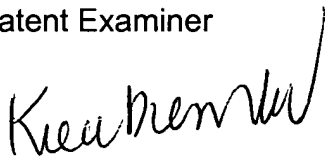
and / or:

571-273-4057 (use this FAX #, only after approval by Examiner, for "INFORMAL" or "DRAFT" communication. Examiners may request that a formal paper / amendment be faxed directly to them on occasions).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703-305-3900).

Kieu D. Vu

Patent Examiner

A handwritten signature in black ink, appearing to read 'Kieu D. Vu', written in a cursive style.